

Contents

Preface	vii
General geology	
ACEÑOLAZA, G. & ACEÑOLAZA, F. Insights in the Neoproterozoic–Early Cambrian transition of NW Argentina: facies, environments and fossils in the proto-margin of western Gondwana	1
CHUMAKOV, N. M. Climates and climate zonality of the Vendian: geological evidence	15
KATSUTA, N., TOJO, B., TAKANO, M., YOSHIOKA, H., KAWAKAMI, S., OHNO, T. & KUMAZAWA, M. Non-destructive method to detect the cycle of lamination in sedimentary rocks: rhythmite sequence in Neoproterozoic Cap carbonates	27
LINNEMANN, U. Ediacaran rocks from the Cadomian basement of the Saxo-Thuringian Zone (NE Bohemian Massif, Germany): age constraints, geotectonic setting and basin development	35
RAUB, T. D., EVANS, D. A. D. & SMIRNOV, A. V. Siliciclastic prelude to Elatina–Nuccaleena deglaciation: lithostratigraphy and rock magnetism of the base of the Ediacaran system	53
TEWARI, V. C. The rise and decline of the Ediacaran biota: palaeobiological and stable isotopic evidence from the NW and NE Lesser Himalaya, India	77
TOJO, B., KATSUTA, N., TAKANO, M., KAWAKAMI, S. & OHNO, T. Calcite–dolomite cycles in the Neoproterozoic Cap carbonates, Otavi Group, Namibia	103
Correlation and naming	
GREY, K. & CALVER, C. R. Correlating the Ediacaran of Australia	115
JENKINS, R. J. F. ‘Ediacaran’ as a name for the newly designated terminal Proterozoic period	137
Micropalaeontology	
BRAUN, A., CHEN, J., WALOSZEK, D. & MAAS, A. First Early Cambrian Radiolaria	143
LI, C.-W., CHEN, J.-Y., LIPPS, J. H., GAO, F., CHI, H.-M. & WU, H.-J. Ciliated protozoans from the Precambrian Doushantuo Formation, Wengan, South China	151
Ediacarans	
FEDONKIN, M. A., SIMONETTA, A. & IVANTSOV, A. Y. New data on <i>Kimberella</i> , the Vendian mollusc-like organism (White Sea region, Russia): palaeoecological and evolutionary implications	157
TRUSLER, P., STILWELL, J. & VICKERS-RICH, P. Comment: future research directions for further analysis of <i>Kimberella</i>	181
FEDONKIN, M. A. & IVANTSOV, A. Y. <i>Ventogyrus</i> , a possible siphonophore-like trilobozean coelenterate from the Vendian Sequence (late Neoproterozoic), northern Russia	187
JENKINS, R. J. F. & NEDIN, C. The provenance and palaeobiology of a new multi-vened, chambered frondose organism from the Ediacaran (later Neoproterozoic) of South Australia	195
JENSEN, S., PALACIOS, T. & MARTÍ MUS, M. A brief review of the fossil record of the Ediacaran–Cambrian transition in the area of Montes de Toledo-Guadalupe, Spain	223
LAFLAMME, M., NARBONNE, G. M., GREENTREE, C. & ANDERSON, M. M. Morphology and taphonomy of an Ediacaran frond: <i>Charnia</i> from the Avalon Peninsula of Newfoundland	237
LEONOV, M. V. Comparative taphonomy of Vendian genera <i>Beltanelloides</i> and <i>Nemiana</i> : taxonomy and lifestyle	259
LEONOV, M. V. & RAGOZINA, A. L. Upper Vendian assemblages of carbonaceous micro- and macrofossils in the White Sea Region: systematic and biostratigraphic aspects	269
MACGABHANN, B. A., MURRAY, J. & NICHOLAS, C. <i>Ediacaria booleyi</i> : weeded from the Garden of Ediacara?	277

MACGABHANN, B. A. Discoidal fossils of the Ediacaran biota: a review of current understanding	297
MAITHY, P. K. & KUMAR, G. Biota in the terminal Proterozoic successions on the Indian subcontinent: a review	315
SEREZHNIKOVA, E. A. Vendian <i>Hiemalora</i> from Arctic Siberia reinterpreted as holdfasts of benthic organisms	331
Body plans	
SAVAZZI, E. A new reconstruction of <i>Protolyellia</i> (Early Cambrian psammocoral)	339
SPERLING, E. A., PISANI, D. & PETERSON, K. J. Poriferan paraphyly and its implications for Precambrian palaeobiology	355
VALENTINE, J. W. Seeing ghosts: Neoproterozoic bilaterian body plans	369
Functional morphology	
ANTCLIFFE, J. B. & BRASIER, M. D. Towards a morphospace for the Ediacara biota	377
SEILACHER, A. The nature of vendobionts	387
TOJO, B., SAITO, R., KAWAKAMI, S. & OHNO, T. Theoretical morphology of quilt structures in Ediacaran fossils	399
Precambrian–Cambrian transition	
DZIK, J. The Verdun Syndrome: simultaneous origin of protective armour and infaunal shelters at the Precambrian–Cambrian transition	405
PARKHAEV, P. Y. The Cambrian ‘basement’ of gastropod evolution	415
Short papers	
BRAUN, A., CHEN, J.-Y., WALOSZEK, D. & MAAS, A. Siliceous microfossils and biosiliceous sedimentation in the lowermost Cambrian of China	423
GEHLING, J. G. Fleshing out the Ediacaran period	425
HERMANN, T. N. & PODKOVOYROV, V. N. <i>Rugosoopsis</i> : a new group of Upper Riphean animals	429
JAFARI, S. M., SHEMIRANI, A. & HAMDI, B. Microstratigraphy of the Late Ediacaran to the Ordovician in NW Iran (Takab area)	433
MAHESHWARI, A., SIAL, A. N. & MATHUR, S. C. $\delta^{13}\text{C}$ stratigraphy of the Birmania Basin, Rajasthan, India: implications for the Vendian–Cambrian transition	439
TURNER, S. & VICKERS-RICH, P. Sprigg, Glaessner and Wade and the discovery and international recognition of the Ediacaran fauna	443
VICKERS-RICH, P. Saline giants, cold cradles and global playgrounds of Neoproterozoic Earth: the origin of the Animalia	447
Index	449